

HYBRID COHERENT-OPTICAL, RF SIGNAL CHANNELIZER**ABSTRACT**

An optical channelizer system that is adapted to provide instantaneous RF signal channelization at frequencies on the order of 100 GHz or more into channels having bandwidth 5 as small as a few megahertz. In order to improve the channel resolution the optical channelizer system is formed from a plurality of parallel sub-channelizers, for example, twenty-five parallel sub channelizers which can provide 1 GHz channel spacing and 40 MHz signal resolution.

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